



## Check Valves Range

## Conex Bänninger Check Valves

Compact, simple and cost effective, the Conex Bänninger Check Valve works automatically to keep water flowing in one direction and prevents any reverse flow in a system. The force of flow, in the correct direction, opens the valves whilst backflow forces the valve closed.

The Conex Bänninger range includes:

- Double Check Valves
- Horizontal Lift Check Valves
- Spring Check Non-Return Valves
- Foot Valves
- Swing Check Valves (brass and bronze versions)

### Double Check Valves

The Conex Bänninger Double Check Valve consists of two check valve assemblies in series. This employs two operating principles: Firstly, one check valve will still act, even if the other is jammed wide open. Secondly, the closure of one valve reduces the pressure differential across the other, allowing a more reliable seal and avoiding even minor leakage. Double Check Valves are designed specifically to prevent contamination in drinking water systems. These valves are designed in accordance with EN 13959: 2004 Family E, type D.

### Horizontal Lift Check Valves

Conex Bänninger Horizontal Lift Check Valves are suitable for installation in horizontal or vertical pipelines with upward flow. Flow to lift check valves must always enter below the seat. Lift check valves are particularly suitable for high-pressure service where velocity of flow is high or in conditions where pulsating action in the line may cause excessive wear in swing check type valves. This type of check valve is commonly used in piping systems in which globe valves are used as flow control valves.

### Spring Check Non-Return Valves

Spring Check Non-Return Valves are simple, low cost but effective products providing back flow protection. As these products are fitted with a resilient seat they are suitable for use in systems for air, gas or low pressure applications where bubble tight closure is necessary.

### Foot Valves

Foot Valve assemblies comprise a spring check non-return valve fitted with a strainer screen on the inlet side. These products are most often used in connection with drawing fluid from a well, tank or reservoir. The screen prevents soil, dirt and debris getting in the system, thus protecting the valves further along the pipe.

### Swing Check Valves

Swing Check Valves are used for water and other liquids. Swing Check Valves can be installed in horizontal or vertical upward flow pipe systems. For low pressure applications and for air or gas systems where bubble tight closure is necessary, the valve should be fitted with a rubber faced seal. The current range does not include this facility but such a feature can be made available to special order.

### Applications and uses

Conex Bänninger Check Valve range is available for use with water, oil and air up to 5 bar. The Double Check Valve is specifically designed for use with drinking water and should be used in domestic applications to protect drinking water supply systems from contamination.

Conex Bänninger Check Valves are approved for drinking water applications where stated and are suitable for low temperature hot water and chilled systems.

Valve materials

Valves made from yellow brass are suitable for general purpose applications. They are not recommended for chilled water systems because of a risk of stress corrosion cracking or waters which may result in dezincification.

Valves made from DZR brass are suitable for applications where they may be subjected to waters which are very hard and contain high salt levels. Waters which contain high levels of some chlorides, sulphides or carbon dioxide, may also cause dezincification.

Valves made from bronze are suitable for a broad range of application areas as they are classed as immune to dezincification, stress corrosion cracking and are highly corrosion resistant.

Quality assurance

Conex Universal is an ISO 9001 Quality Assured company and is registered with the BSI.

5-year warranty

When professionally fitted and in accordance with the installation instructions, Conex Banninger valves are guaranteed against manufacturing defects for five years from first purchase date.

Any alleged defects must be reported to Conex Universal Ltd within one month of the first occurrence, clearly setting out the nature of the claim. The warranty is limited to the repair and replacement of defective fittings at the discretion of Conex Universal Ltd and the company reserves the right to inspect and test the alleged defects. This warranty provided by Conex Universal Ltd does not affect your statutory rights. For more information visit [www.conexbanninger.com](http://www.conexbanninger.com).

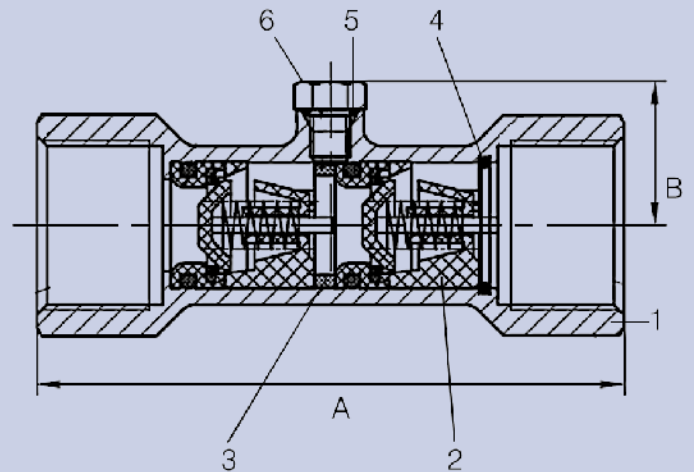
General information

Performance data, including pressure-temperature ratings has been developed from published standards, supplier material specifications, design calculations and in-house testing. It covers typical applications for the Conex Bänninger valve product range and is provided as a general guideline.

For specific applications, users are advised to contact Conex Universal Ltd for technical advice, or to complete their own evaluation to prove technical suitability of the products. Failure to follow this may result in damage and personal injury for which Conex Universal Ltd cannot be held liable.

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## Valve range

1340 Double Check Valve - PN16 - (DZR)

### Material specification

1340 - 1/2" - 2"

| No | Component       | Material        | Specification   |
|----|-----------------|-----------------|-----------------|
| 1  | Body            | DZR Brass       | EN 12165 CW602N |
| 2  | Check Spool     | Acetal          | Acetal          |
| 3  | Retaining Ring  | Nylon           | Nylon 66        |
| 4  | Clip            | Stainless steel | ISO.15510       |
| 5  | O-ring          | EPDM            | EN 2430:1995    |
| 6  | Inspection Port | DZR Brass       | EN 12164 CW602N |

### Features and benefits:

- Designed in accordance with EN 13959, family E, type D.
- WRAS approved for drinking water applications.
- End connections, ISO 228 parallel threads, female ends.
- PN16 from -10° to +85°C.
- Suitable for low temperature hot water and chilled systems.
- Prevents backflow.
- Drain screw / inspection port.

### Double Check Valve - 1340

| Order Code<br>ISO 228 | Size   | DN | A   | B  | KV<br>Value | Weight<br>(Kg) |
|-----------------------|--------|----|-----|----|-------------|----------------|
| 134050FF0160404       | 1/2"   | 15 | 70  | 17 | 2.7         | 0.10           |
| 134050FF0160606       | 3/4"   | 20 | 85  | 20 | 4.8         | 0.17           |
| 134050FF0160808       | 1"     | 25 | 100 | 23 | 10          | 0.27           |
| 134050FF0161010       | 1 1/4" | 32 | 120 | 26 | 19.6        | 0.40           |
| 134050FF0161212       | 1 1/2" | 40 | 138 | 30 | 35.5        | 0.58           |
| 134050FF0161616*      | 2"     | 50 | 183 | 36 | -           | 1.30           |

\* Valve available to special order.

### Valve suitability

| Product | Steam | Water | Drinking<br>Water | Oil | Air<br>(Oil Free) | Gas<br>(Inert) | Gas<br>(Combustible) | Gas<br>(Corrosive) | Gas<br>(Oxygen) |
|---------|-------|-------|-------------------|-----|-------------------|----------------|----------------------|--------------------|-----------------|
| 1340    | x     | ✓     | ✓                 | x   | x                 | x              | x                    | x                  | x               |

### Max. working parameters

| 1340  | Temperature °C | Pressure bar | Pressure psi |
|-------|----------------|--------------|--------------|
| Water | -10 to +85     | 16           | 230          |

### Specification clauses:

Designed in accordance with EN 13959.

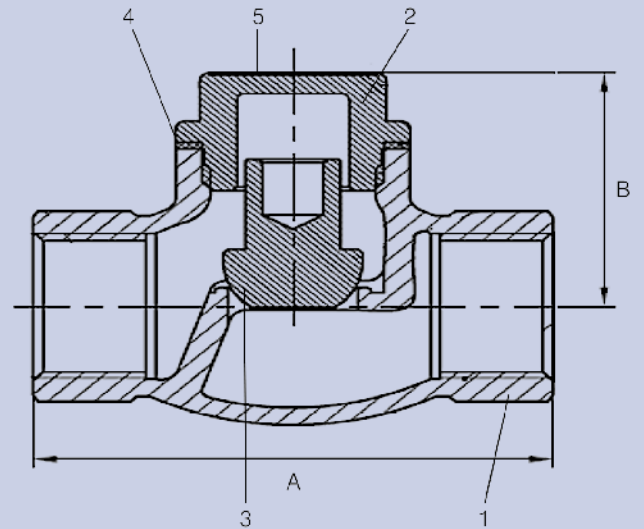
WRAS approved for drinking water applications.

Suitable for low temperature hot water and chilled systems.

Prevents backflow.

End connections, ISO 228 parallel threads, female ends.

Inspection port.



## Valve range

1360 Horizontal Lift Check Valve - PN32 - (Bronze)

### Material specification

1360 - 1/2" - 2"

| No | Component   | Material  | Specification  |
|----|-------------|-----------|----------------|
| 1  | Body        | Bronze    | EN 1982 CC491K |
| 2  | Cap         | Bronze    | EN 1982 CC491K |
| 3  | Disc        | Bronze    | EN 1982 CC491K |
| 4  | Gasket Seal | PTFE      | PTFE           |
| 5  | ID Disc     | Aluminium | EN 1706 LM6    |

### Features and benefits:

- Designed in accordance with EN 5154.
- Suitable for water, oil and oil free air applications.
- Suitable for low temperature hot water and chilled systems.
- WRAS approved for drinking water applications.
- Metal to metal seat.
- Seating disc guided inside cap.
- End connections, female taper threads to EN 10226-2 (ISO 7-1) and parallel threads to ISO 228.

### Horizontal Lift Check Valve - 1360

| Order Code<br>EN 10226-2<br>(ISO 7-1) thread | Order Code<br>ISO 228 thread | Size   | DN | A   | B  | KV<br>Value | Weight<br>(Kg) |
|--|------------------------------|--------|----|-----|----|-------------|----------------|
| 136020RR0320404                              | 136020FF0320404              | 1/2"   | 15 | 60  | 34 | -           | 0.28           |
| 136020RR0320606                              | 136020FF0320606              | 3/4"   | 20 | 75  | 42 | -           | 0.44           |
| 136020RR0320808                              | 136020FF0320808              | 1"     | 25 | 85  | 46 | 12.3        | 0.60           |
| 136020RR0321010                              | 136020FF0321010              | 1 1/4" | 32 | 100 | 51 | -           | 1.14           |
| 136020RR0321212                              | 136020FF0321212              | 1 1/2" | 40 | 110 | 54 | -           | 1.46           |
| 136020RR0321616                              | 136020FF0321616              | 2"     | 50 | 120 | 72 | -           | 2.57           |

### Valve suitability

| Product | Steam | Water | Drinking<br>Water | Oil | Air<br>(Oil Free) | Gas<br>(Inert) | Gas<br>(Combustible) | Gas<br>(Corrosive) | Gas<br>(Oxygen) |
|---------|-------|-------|-------------------|-----|-------------------|----------------|----------------------|--------------------|-----------------|
| 1360    | x     | ✓     | ✓                 | ✓   | ✓                 | x              | x                    | x                  | x               |

This valve is not suitable for gas applications.

### Max. working parameters

| 1360  | Temperature °C | Pressure Bar | Pressure psi |
|-------|----------------|--------------|--------------|
| Water | -10 to +100    | 32           | 460          |

### Specification clauses:

Valves are designed in accordance with EN 5154.

WRAS approved for drinking water applications.

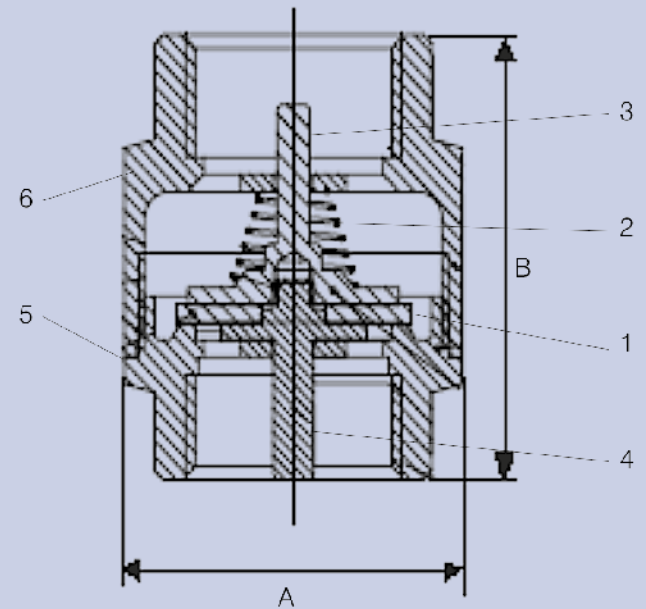
Suitable for low temperature hot water and chilled systems.

Disc is spherical shaped, guided in the cap.

Body seat is integral.

End connections, female taper threads to EN 10226-2 (ISO 7-1) and parallel threads to ISO 228.





## Valve range

1451 Spring Check Non Return Valve - PN10/12 - (Brass)

### Material specification

1451 - 1/2" - 2"

| No | Component                 | Material        | Specification      |
|----|---------------------------|-----------------|--------------------|
| 1  | Seat                      | EPDM            | EN 2430:1995       |
| 2  | Spring                    | Stainless Steel | ISO.15510          |
| 3  | Spindle core (Upstream)   | Brass           | EN 12165 CW617N-DW |
| 4  | Spindle core (Downstream) | Brass           | EN 12165 CW617N-DW |
| 5  | Bonnet                    | Brass           | EN 12165 CW617N-DW |
| 6  | Body                      | Brass           | EN 12165 CW617N-DW |



### Features and benefits:

- WRAS approved for drinking water applications.
- Brass core for improved strength and performance.
- PN12 up to 1", PN10 above 1".
- End connections, female parallel threads to ISO 228 female ends.
- Suitable for low temperature hot water systems.

### Spring Check Non Return Valve - 1451

| Order Code<br>ISO 228 thread | Size   | DN | A  | B  | KV<br>Value | Weight<br>(Kg) |
|------------------------------|--------|----|----|----|-------------|----------------|
| 145110FF0120404              | 1/2"   | 15 | 48 | 33 | 2.4         | 0.14           |
| 145110FF0120606              | 3/4"   | 20 | 51 | 42 | 3.3         | 0.24           |
| 145110FF0120808              | 1"     | 25 | 59 | 47 | -           | 0.27           |
| 145110FF0101010              | 1 1/4" | 32 | 72 | 59 | 17.2        | 0.52           |
| 145110FF0101212              | 1 1/2" | 40 | 83 | 67 | 36.5        | 0.74           |
| 145110FF0101616              | 2"     | 50 | 92 | 83 | 52.7        | 1.06           |

### Valve suitability

| Product | Steam | Water | Drinking<br>Water | Oil | Air*<br>(Oil Free) | Gas<br>(Inert) | Gas<br>(Combustible) | Gas<br>(Corrosive) | Gas<br>(Oxygen) |
|---------|-------|-------|-------------------|-----|--------------------|----------------|----------------------|--------------------|-----------------|
| 1451    | x     | ✓     | ✓                 | ✓   | ✓                  | x              | x                    | x                  | x               |

\*Limited to 5 bar max.

This valve is not suitable for gas applications.

### Max. working parameters

| 1451  | Size        | Temperature °C | Pressure bar | Pressure psi | Min. operating pressure bar |
|-------|-------------|----------------|--------------|--------------|-----------------------------|
| Water | 1/2" – 1"   | -10 to +100    | 12           | 174          | -0.002 to +0.04             |
| Water | 1 1/4" - 2" | -10 to +100    | 10           | 145          | -0.002 to +0.04             |

Not suitable for temperatures above +100°C.

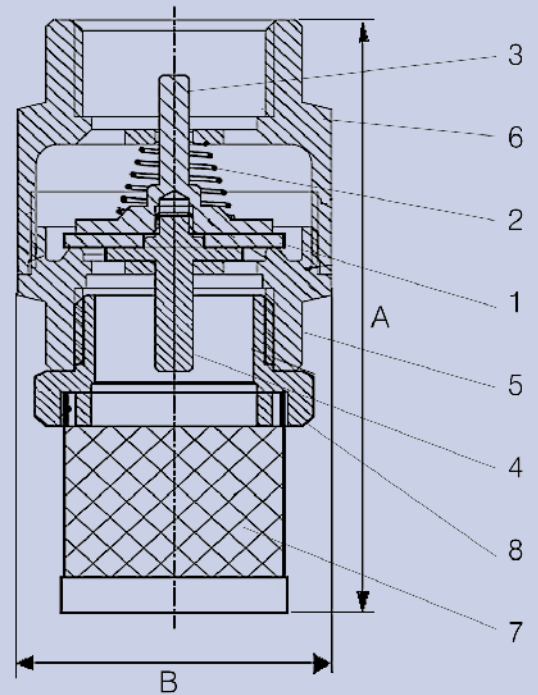
### Specification clauses:

WRAS approved for drinking water applications.

Suitable for low temperature hot water systems.

End connections, female parallel threads to ISO 228 female ends.

Brass core for improved strength and performance.



## Valve range

1461 Foot Valve - PN10/PN12 - (Brass)

### Material specification

1461 - 1/2" - 2"

| No | Component                 | Material        | Specification      |
|----|---------------------------|-----------------|--------------------|
| 1  | Seat                      | EPDM            | EN 2430:1995       |
| 2  | Spring                    | Stainless Steel | ISO.15510          |
| 3  | Spindle Core (Upstream)   | Brass           | EN 12165 CW617N-DW |
| 4  | Spindle Core (Downstream) | Brass           | EN 12165 CW617N-DW |
| 5  | Bonnet                    | Brass           | EN 12165 CW617N-DW |
| 6  | Body                      | Brass           | EN 12165 CW617N-DW |
| 7  | Strainer                  | Stainless Steel | ISO.15510          |
| 8  | Strainer Adaptor          | Acetal          | Acetal             |

### Features and benefits:

- Designed in accordance with WRAS requirements.
- Stainless steel mesh strainer.
- Brass core for improved strength and performance.
- PN12 up to 1", PN10 above 1".
- End connections, parallel threads to ISO 228 female ends.
- Suitable for low temperature hot water systems.

### Foot Valve - 1461

| Order Code<br>ISO 228 thread | Size   | DN | A   | B  | KV<br>Value | Weight<br>(Kg) |
|------------------------------|--------|----|-----|----|-------------|----------------|
| 146110FF0120404              | 1/2"   | 15 | 65  | 33 | 2.4         | 0.14           |
| 146110FF0120606              | 3/4"   | 20 | 86  | 42 | 3.3         | 0.24           |
| 146110FF0120808              | 1"     | 25 | 103 | 47 | -           | 0.27           |
| 146110FF0101010              | 1 1/4" | 32 | 119 | 59 | 17.2        | 0.52           |
| 146110FF0101212              | 1 1/2" | 40 | 141 | 67 | 36.5        | 0.74           |
| 146110FF0101616              | 2"     | 50 | 159 | 83 | 52.7        | 1.06           |

### Valve suitability

| Product | Steam | Water | Drinking<br>Water | Oil | Air*<br>(Oil Free) | Gas<br>(Inert) | Gas<br>(Combustible) | Gas<br>(Corrosive) | Gas<br>(Oxygen) |
|---------|-------|-------|-------------------|-----|--------------------|----------------|----------------------|--------------------|-----------------|
| 1461    | x     | ✓     | x                 | ✓   | ✓                  | x              | x                    | x                  | x               |

\* Limited to 5 bar max.

### Max. working parameters

| 1461  | Size        | Temperature °C | Pressure bar | Pressure psi | Min. operating pressure bar |
|-------|-------------|----------------|--------------|--------------|-----------------------------|
| Water | 1/2" – 1"   | -10 to +100    | 12           | 174          | -0.002 to +0.04             |
| Water | 1 1/4" - 2" | -10 to +100    | 10           | 145          | -0.002 to +0.04             |

Not suitable for temperatures above +100°C.

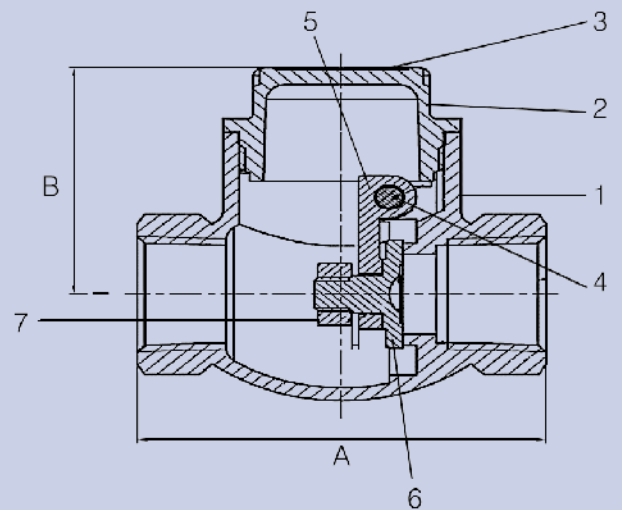
### Specification clauses:

Suitable for low temperature hot water systems.

End connections, parallel threads to ISO 228 female ends.

Brass core for improved strength and performance.

Stainless steel mesh strainer.



## Valve range

1470 Swing Check Valve - PN25 - (Brass)

### Material specification

1470 - 1/2" - 2"

| No | Component     | Material        | Specification   |
|----|---------------|-----------------|-----------------|
| 1  | Body          | Brass           | EN 12165 CW617N |
| 2  | Cap           | Brass           | EN 12165 CW617N |
| 3  | Identity Disc | Aluminium       | EN 1706 LM6     |
| 4  | Swing Pin     | Stainless steel | ISO.15510       |
| 5  | Swing Arm     | Brass           | EN 12165 CW617N |
| 6  | Seat          | Brass           | EN 12165 CW617N |
| 7  | Retaining Nut | Brass           | EN 12165 CW617N |

### Features and benefits:

- WRAS approved for drinking water systems.
- Suitable for water and other liquids.
- Metal to metal seat.
- Horizontal swing check design.
- Choice of alternative disc material to special order.
- End connections, female taper threads to EN 10226-2 (ISO 7-1) and parallel threads to ISO 228.
- Suitable for low temperature hot water systems.

### Swing Check Valve - 1470

| Order Code<br>EN 10226-2<br>(ISO 7-1) thread | Order Code<br>ISO 228 thread | Size   | DN | A   | B  | KV<br>Value | Weight<br>(Kg) |
|--|------------------------------|--------|----|-----|----|-------------|----------------|
| 147010RR0250404                              | 147010FF0250404              | 1/2"   | 15 | 60  | 42 | 5.8         | 0.26           |
| 147010RR0250606                              | 147010FF0250606              | 3/4"   | 20 | 70  | 48 | 7.1         | 0.37           |
| 147010RR0250808                              | 147010FF0250808              | 1"     | 25 | 80  | 54 | 23          | 0.64           |
| 147010RR0251010                              | 147010FF0251010              | 1 1/4" | 32 | 90  | 60 | -           | 0.92           |
| 147010RR0251212                              | 147010FF0251212              | 1 1/2" | 40 | 100 | 70 | 82          | 1.26           |
| 147010RR0251616                              | 147010FF0251616              | 2"     | 50 | 110 | 80 | 93          | 1.95           |

### Valve suitability

| Product | Steam | Water | Drinking<br>Water | Oil | Air<br>(Oil Free) | Gas<br>(Inert) | Gas<br>(Combustible) | Gas<br>(Corrosive) | Gas<br>(Oxygen) |
|---------|-------|-------|-------------------|-----|-------------------|----------------|----------------------|--------------------|-----------------|
| 1470    | x     | ✓     | ✓                 | ✓   | ✓                 | x              | x                    | x                  | x               |

This valve is not suitable for gas applications.

### Max. working parameters

| 1470  | Temperature °C | Pressure bar | Pressure psi |
|-------|----------------|--------------|--------------|
| Water | -10 to +100    | 25           | 360          |

### Specification clauses:

Brass body.

Metal disc, screwed in cap.

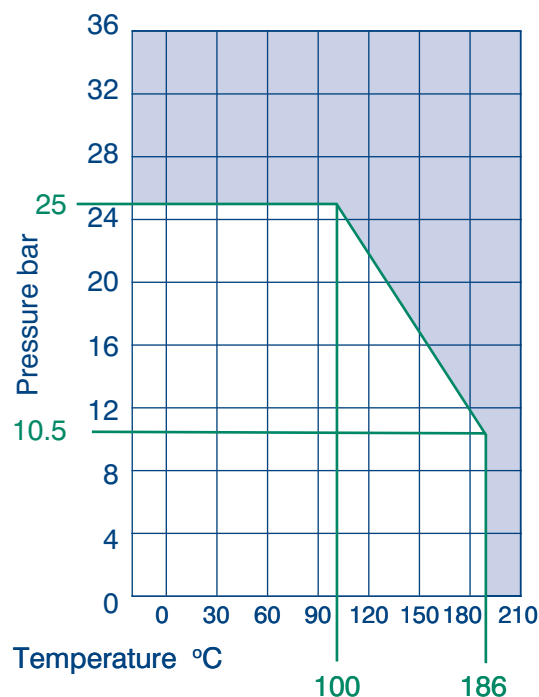
Operation is automatic using a swing type check.

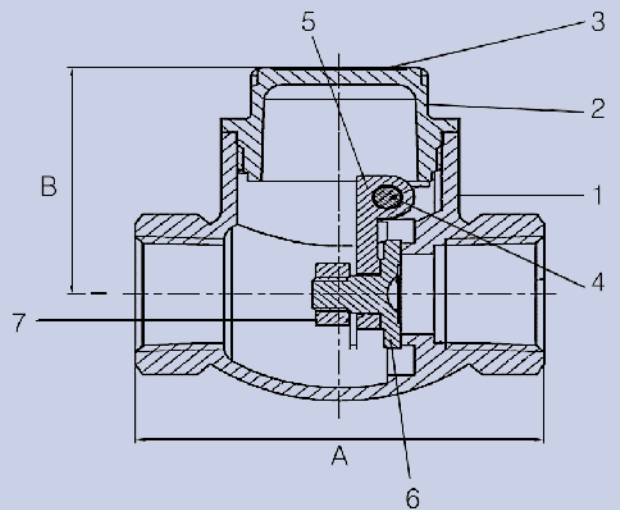
Valves are manufactured in accordance with EN 5154:1991 PN25 for Series B ratings.

End connections, female taper threads to EN 10226-2 (ISO 7-1) and parallel threads to ISO 228.

WRAS approved for drinking water systems.

Suitable for low temperature hot water systems.





## Valve range

1470 Swing Check Valve - PN25 - (Bronze)

### Material specification

1470 - 1/2" - 2"

| No | Component     | Material        | Specification  |
|----|---------------|-----------------|----------------|
| 1  | Body          | Bronze          | EN 1982 CC491K |
| 2  | Cap           | Bronze          | EN 1982 CC491K |
| 3  | Identity Disc | Aluminium       | EN 1706 LM6    |
| 4  | Swing Pin     | Stainless steel | ISO.15510      |
| 5  | Swing Arm     | Bronze          | EN 1982 CC491K |
| 6  | Seat          | Bronze          | EN 1982 CC491K |
| 7  | Retaining Nut | Bronze          | EN 1982 CC491K |

### Features and benefits:

- WRAS approved for drinking water systems.
- Horizontal swing check design.
- Metal to metal seat.
- Choice of alternative disc material to special order.
- End connections, female taper threads to EN 10226-2 (ISO 7-1) and parallel threads to ISO 228.
- Suitable for water and other liquids.
- Suitable for low temperature hot water and chilled systems.

### Swing Check Valve - 1470

| Order Code<br>EN 10226-2<br>(ISO 7-1) thread | Order Code<br>ISO 228 thread | Size   | DN | A   | B  | KV<br>Value | Weight<br>(Kg) |
|--|------------------------------|--------|----|-----|----|-------------|----------------|
| 147020RR0250404                              | 147020FF0250404              | 1/2"   | 15 | 60  | 42 | 5.8         | 0.36           |
| 147020RR0250606                              | 147020FF0250606              | 3/4"   | 20 | 70  | 48 | 7.1         | 0.44           |
| 147020RR0250808                              | 147020FF0250808              | 1"     | 25 | 80  | 54 | 23          | 0.69           |
| 147020RR0251010                              | 147020FF0251010              | 1 1/4" | 32 | 90  | 60 | -           | 0.97           |
| 147020RR0251212                              | 147020FF0251212              | 1 1/2" | 40 | 100 | 70 | 82          | 1.38           |
| 147020RR0251616                              | 147020FF0251616              | 2"     | 50 | 110 | 80 | 93          | 2.01           |

### Valve suitability

| Product | Steam | Water | Drinking<br>Water | Oil | Air<br>(Oil Free) | Gas<br>(Inert) | Gas<br>(Combustible) | Gas<br>(Corrosive) | Gas<br>(Oxygen) |
|---------|-------|-------|-------------------|-----|-------------------|----------------|----------------------|--------------------|-----------------|
| 1470    | x     | ✓     | ✓                 | ✓   | ✓                 | x              | x                    | x                  | x               |

This valve is not suitable for gas applications.

### Max. working parameters

| 1470  | Temperature °C | Pressure bar | Pressure psi |
|-------|----------------|--------------|--------------|
| Water | -10 to +100    | 25           | 360          |

### Specification clauses:

Valves are manufactured in accordance with EN 5154:1991 PN25 for Series B ratings.

Bronze body.

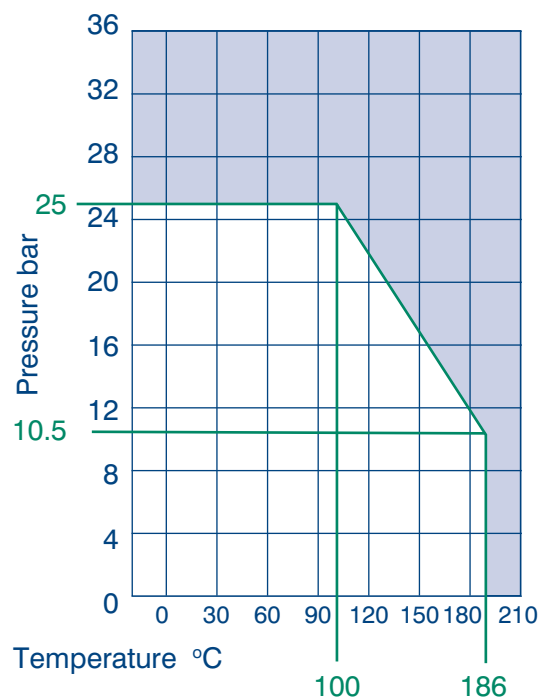
Metal disc, screwed in cap.

Operation is automatic using a swing type check.

End connections, female taper threads to EN 10226-2 (ISO 7-1) and parallel threads to ISO 228.

WRAS approved for drinking water systems.

Suitable for low temperature hot water and chilled systems.





# Conex | Bänninger



Conex | Bänninger  
**Conex Compression**

Conex | Bänninger  
**Triflow Solder Ring**

Conex | Bänninger  
**Delcop End Feed**

Conex | Bänninger  
**Delbraze**

Conex | Bänninger  
**>B< Press**

Conex | Bänninger  
**>B< Press Gas**

Conex | Bänninger  
**>B< Press Solar**

Conex | Bänninger  
**>B< Press XL**

Conex | Bänninger  
**>B< Press Carbon**

Conex | Bänninger  
**>B< Press Inox**

Conex | Bänninger  
**>B< Flex**

Conex | Bänninger  
**>B< Push**

Conex | Bänninger  
**Push-Fit**

Conex | Bänninger  
**Cuprofit**

Conex | Bänninger  
**K65®**

Conex | Bänninger  
**Valves**

Conex | Bänninger  
**>B< Oyster**

Conex | Bänninger  
**Medical Gas**

Conex | Bänninger  
**OEM**

Conex | Bänninger  
**>B< ACR**

Conex | Bänninger  
**Series 3000**

Conex | Bänninger  
**Series 8000**

Conex | Bänninger  
**Series 8000 M**



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IBP Instalittings Sp z o.o.

China  
IBP China

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